

DOCKET NO. 498 – Diamond Towers V, LLC application	}	Connecticut
for a Certificate of Environmental Compatibility and Public	}	
Need for the construction, maintenance, and operation of a	}	Siting
telecommunications facility located at 185 Academy Road	}	
(Route 68/Route 70), Cheshire, Connecticut.	}	Council

August 12, 2021

Findings of Fact

Introduction

1. Diamond Towers V, LLC (Diamond or Applicant), in accordance with provisions of Connecticut General Statutes (C.G.S.) § 16-50g, et seq, applied to the Connecticut Siting Council (Council) on March 11, 2021, for a Certificate of Environmental Compatibility and Public Need (Certificate) for the construction, maintenance, and operation of a 95-foot monopine wireless telecommunications facility at 185 Academy Road, Cheshire, Connecticut. (Applicant 1, p. 5)
2. Diamond is a Delaware limited liability company with an office located at 820 Morris Turnpike, Suite 104, Short Hills, New Jersey. Diamond constructs and owns wireless telecommunications facilities throughout the United States. Diamond would construct, maintain and own the proposed facility and would be the Certificate Holder. (Applicant 1, p. 5)
3. The party in this proceeding is Diamond. The Intervenor in this proceeding is Cellco Partnership d/b/a Verizon Wireless (Cellco). (Transcript 1, May 11, 2021, 2 p.m. [Tr. 1], p. 6)
4. Cellco is licensed by the Federal Communications Commission (FCC) to provide personal wireless communication service in the State of Connecticut. (Applicant 2, p. 1, Cellco 1, Petition to Intervene, p. 1)
5. The purpose of the proposed facility is to provide reliable wireless communications services for Cellco's customers in the eastern-central portion of Cheshire. (Applicant 1, pp. 4 and 12; Attachment 1)
6. Pursuant to C.G.S. § 16-50l (b), the applicant provided public notice of the filing of the application that was published in the Cheshire Herald on February 25, and March 4, 2021. (Applicant 3)
7. Pursuant to C.G.S. § 16-50l (b), notice of the application was provided to all abutting property owners by certified mail on March 3, 2021. Certified mail receipts from two abutting property owners were not received and Diamond resent notice to these two property owners by first class mail on March 29, 2021. (Applicant 1, Attachment 11; Applicant 4, Response 1)
8. On March 10, 2021, the Applicant provided notice to all federal, state and local officials and agencies listed in C.G.S. § 16-50l (b). (Applicant 1, p.7; Attachment 12)

Procedural Matters

9. On March 10, 2020, Governor Lamont issued a Declaration of Public Health and Civil Preparedness Emergencies, proclaiming a state of emergency throughout the state as a result of the COVID-19 pandemic. (Council Administrative Notice Item No. 52).
10. On March 12, 2020, Governor Lamont issued Executive Order No. (EO) 7 ordering a prohibition of large gatherings, among other orders and directives. (Council Administrative Notice Item No. 52).

11. On March 14, 2020, and as subsequently extended, Governor Lamont issued EO 7B ordering suspension of in-person open meeting requirements of all public agencies under CGS §1-225. The Freedom of Information Act defines “meeting” in relevant part as “any hearing or other proceeding of a public agency.” (Council Administrative Notice Item No. 52, CGS §1-200, et seq. (2019)).
12. EO 7B allows public agencies to hold remote meetings provided that:
 - a) The public has the ability to view or listen to each meeting or proceeding in real-time, by telephone, video, or other technology;
 - b) Any such meeting or proceeding is recorded or transcribed and such recording or transcript shall be posted on the agency’s website within seven (7) days of the meeting or proceeding;
 - c) The required notice and agenda for each meeting or proceeding is posted on the agency’s website and shall include information on how the meeting will be conducted and how the public can access it any materials relevant to matters on the agenda shall be submitted to the agency and posted on the agency’s website for public inspection prior to, during and after the meeting; and
 - d) All speakers taking part in any such meeting shall clearly state their name and title before speaking on each occasion they speak.(Council Administrative Notice Item No. 52)
13. On March 25, 2020, and as subsequently extended, Governor Lamont issued EO 7M allowing for an extension of all statutory and regulatory deadlines of administrative agencies for a period of no longer than 90 days. (Record; Council Administrative Notice Item No. 52)
14. Upon receipt of the application, the Council sent a letter to the Town of Cheshire (Town) on March 12, 2021, as notification that the application was received and is being processed, in accordance with C.G.S. § 16-50gg. (Record)
15. During a regular Council meeting on April 8, 2021, the application was deemed complete pursuant to Regulations of Connecticut State Agencies (R.C.S.A.) § 16-50/-1a and the public hearing schedule was approved by the Council. (Record)
16. Pursuant to Governor Lamont’s EO 7B, as extended. and C.G.S. § 16-50m, on April 12, 2021, the Council sent a letter to the Town to provide notification of the scheduled public hearing via Zoom conferencing and to invite the municipality to participate. (Record)
17. Pursuant to Governor Lamont’s EO 7B, as extended, and C.G.S. § 16-50m, the Council published legal notice of the date and time of the remote public hearing via Zoom conferencing in The Cheshire Herald on April 15, 2021. (Record)
18. In compliance with Governor Lamont’s EO 7 prohibition of large gatherings, the Council’s Hearing Notice did not refer to a public field review of the proposed site. (Record)
19. Field reviews are not an integral part of the public hearing process. The purpose of a site visit is an investigative tool to acquaint members of a reviewing commission with the subject property. (Council Administrative Notice Item Nos. 53 and 54)
20. On April 15, 2021, the Council held a pre-hearing teleconference on procedural matters for parties and intervenors to discuss the requirements for pre-filed testimony, exhibit lists, administrative notice lists, expected witness lists and filing of pre-hearing interrogatories. Procedures for the

remote public hearing via Zoom conferencing were also discussed. (Council Pre-Hearing Conference and remote hearing procedure Memoranda, dated April 15, 2021, and April 21, 2021)

21. On April 16, 2021, in lieu of an in-person field review of the proposed site, the Council requested that Diamond submit photographic documentation of site-specific features into the record intended to serve as a “virtual” field review of the site. On May 3, 2021, Diamond submitted such information in response to the Council’s interrogatories. (Record; Applicant 4, Response 26)
22. In compliance with R.C.S.A. § 16-50j-21, the Applicant installed a four-foot by six-foot sign at the entrance to the subject property on April 25, 2021. The sign presented information regarding the project and the Council’s public hearing. (Applicant 5 - Applicant’s Sign Posting Affidavit)
23. On May 6, 2021, the Council issued a Protective Order related to the disclosure of the monthly rent and financial terms contained within the lease agreement for the proposed site, pursuant to CGS §1-210(b) and consistent with the Conclusions of Law adopted in Docket 366. (Record)
24. Pursuant to C.G.S. § 16-50m, the Council gave due notice of a remote public hearing to be held on May 11, 2021, beginning with the evidentiary session at 2:00 p.m. and continuing with the public comment session at 6:30 p.m. via Zoom conferencing. The Council provided information for video/computer access or audio only telephone access. (Council’s Hearing Notice dated April 15, 2021; Tr. 1, p. 5)
25. In compliance with Governor Lamont’s EO 7B:
 - a) The public had the ability to view and listen to the remote public hearing in real-time, by computer, smartphone, tablet or telephone;
 - b) The remote public hearing was recorded and transcribed, and such recording and transcript were posted on the Council’s website on May 11, 2021 and May 27, 2021, respectively;
 - c) The Hearing Notice, Hearing Program, Citizens Guide for Siting Council Procedures and Instructions for Public Access to the Remote Hearing were posted on the agency’s website;
 - d) The record of the proceeding is available on the Council’s website for public inspection prior to, during and after the remote public hearing; and
 - e) The Council, parties and intervenors provided their information for identification purposes during the remote public hearing.

(Hearing Notice dated April 12, 2021; Tr. 1; Record)

State Agency Comment

26. Pursuant to C.G.S. § 16-50j (g), on April 12, 2021, the following state agencies were solicited by the Council to submit written comments regarding the proposed facility: Department of Energy and Environmental Protection (DEEP); Department of Public Health (DPH); Council on Environmental Quality (CEQ); Public Utilities Regulatory Authority (PURA); Office of Policy and Management (OPM); Department of Economic and Community Development (DECD); Department of Agriculture (DOAg); Department of Transportation (DOT); Connecticut Airport Authority (CAA); Department of Emergency Services and Public Protection (DESPP); and State Historic Preservation Office (SHPO). (Record)
27. The Council received comments from CAA on April 14, 2021, and DPH on May 5, 2021, which are attached. (Record)
28. The following agencies did not respond with comment on the application: DEEP, DOT, CEQ, PURA, OPM, DECD, DOAg, DESPP, and SHPO. (Record)
29. While the Council is obligated to consult with and solicit comments from state agencies by statute, the Council is not required to abide by the comments from state agencies. (*Corcoran v. Connecticut Siting Council*, 284 Conn. 455 (2007)).

Municipal Consultation

30. Diamond commenced the 90-day pre-application municipal consultation process by submitting a technical report to the Town on October 2, 2020. (Applicant 1, p. 25)
31. On November 23, 2020, The Town held a public informational meeting via Zoom conferencing. The meeting was hosted and managed by Town officials via its Zoom meeting room and although Diamond could not tell how many attendees were present, there were no comments by members of the public. The Town's Fire Chief enquired about accommodating municipal communications equipment on the tower. The Town also provided the Applicant with an evaluation of the proposed project. (Applicant 1, p. 25, Attachment 10; Applicant 4, Response 3)

Public Need for Service

32. In 1996, the United States Congress recognized a nationwide need for high quality wireless telecommunications services, including cellular telephone service. Through the Federal Telecommunications Act of 1996, Congress seeks to promote competition, encourage technical innovations, and foster lower prices for telecommunications services. (Council Administrative Notice Item No. 4 – Telecommunications Act of 1996)
33. In issuing cellular licenses, the Federal government has preempted the determination of public need for cellular service by the states and has established design standards to ensure technical integrity and nationwide compatibility among all systems. Cellco is licensed by the FCC to provide personal wireless communication service to New London County, Connecticut. (Council Administrative Notice Item No. 4 – Telecommunications Act of 1996; Cellco 1, p. 6 and Tab 5)

34. Section 253 of the Telecommunications Act of 1996 prohibits any state or local statute or regulation, or other state or local legal requirement from prohibiting or having the effect of prohibiting the ability of any entity to provide any interstate or intrastate telecommunications service. (Council Administrative Notice Item No. 4 – Telecommunications Act of 1996)
35. Section 704 of the Telecommunications Act of 1996 prohibits local and state entities from discriminating among providers of functionally equivalent services and from prohibiting or having the effect of prohibiting the provision of personal wireless services. This section also requires state or local governments to act on applications within a reasonable period of time and to make any denial of an application in writing supported by substantial evidence in a written record. (Council Administrative Notice Item No. 4 – Telecommunications Act of 1996)
36. Section 704 of the Telecommunications Act of 1996 also prohibits any state or local entity from regulating telecommunications towers on the basis of the environmental effects of radio frequency emissions, which include effects on human health and wildlife, to the extent that such towers and equipment comply with FCC’s regulations concerning such emissions. (Council Administrative Notice Item No. 4 – Telecommunications Act of 1996)
37. Section 706 of the Telecommunications Act of 1996 requires each state commission with regulatory jurisdiction over telecommunications services to encourage the deployment on a reasonable and timely basis of advanced telecommunications capability to all Americans, including elementary and secondary schools, by utilizing regulating methods that promote competition in the local telecommunications market and remove barriers to infrastructure investment. (Council Administrative Notice Item No. 4 – Telecommunications Act of 1996)
38. In December 2009, President Barack Obama recognized cell phone towers as critical infrastructure vital to the United States. The Department of Homeland Security, in collaboration with other federal stakeholders, state, local, and tribal governments, and private sector partners, has developed the National Infrastructure Protection Plan (NIPP) to establish a framework for securing resources and maintaining resilience from all hazards during an event or emergency. (Council Administrative Notice Item No. 11 –Presidential Proclamation 8460, Critical Infrastructure Protection)
39. In February 2012, Congress adopted the Middle Class Tax Relief and Job Creation Act (also referred to as the Spectrum Act) to advance wireless broadband service for both public safety and commercial users. The Act established the First Responder Network Authority to oversee the construction and operation of a nationwide public safety wireless broadband network. Section 6409 of the Act contributes to the twin goals of commercial and public safety wireless broadband deployment through several measures that promote rapid deployment of the network facilities needed for the provision of broadband wireless services. (Council Administrative Notice Item No. 8 – Middle Class Tax Relief and Job Creation Act of 2012)
40. In June 2012, President Barack Obama issued an Executive Order to accelerate broadband infrastructure deployment declaring that broadband access is a crucial resource essential to the nation’s global competitiveness, driving job creation, promoting innovation, expanding markets for American businesses and affording public safety agencies the opportunity for greater levels of effectiveness and interoperability. (Council Administrative Notice Item No. 22 – FCC Wireless Infrastructure Report and Order; Council Administrative Notice Item No. 12 – Presidential Executive Order 13616, Accelerating Broadband Infrastructure Development)
41. Pursuant to Section 6409(a) of the Spectrum Act, a state or local government may not deny and shall approve any request for collocation, removal or replacement of equipment on an existing

wireless tower provided that this does not constitute a substantial change in the physical dimensions of the tower. (Council Administrative Notice Item No. 8 – Middle Class Tax Relief and Job Creation Act of 2012; Council Administrative Notice Item No. 23 – FCC Wireless Infrastructure Report and Order)

42. In June 2020, the FCC issued a declaratory ruling that heights of existing towers located outside of the public right-of-way could increase by up to 20 feet plus the height of a new antenna without constituting a substantial change in the physical dimensions of a tower. (Council Administrative Notice Item No. 27)
43. In November 2020, the FCC issued an order that ground excavation or deployment up to 30 feet in any direction beyond the site boundary of existing towers located outside of the public right-of-way does not constitute a substantial change in the physical dimensions of a tower (Council Administrative Notice Item No. 28)
44. According to state policy, if the Council finds that a request for shared use of a facility by a municipality or other person, firm, corporation or public agency is technically, legally, environmentally and economically feasible, and the Council finds that the request for shared use of a facility meets public safety concerns, the Council shall issue an order approving such shared use to avoid the unnecessary proliferation of towers in the state. (Conn. Gen. Stat. §16-50aa)
45. On March 16, 2021, the Council received a request for intervenor status from Cellco. On April 9, 2021, the Council granted Cellco's request to participate as an intervenor. (Record) (Cellco 1, Petition to Intervene)
46. On April 12, 2021, the Council sent correspondence to other telecommunications carriers requesting that carriers interested in locating on the proposed facility in the foreseeable future to notify the Council by May 4, 2021. No other carriers responded to the Council's solicitation. (Record)
47. The Town of Cheshire expressed interest in being assigned a section of the proposed tower for its emergency services and public works and safety communications equipment. (Applicant 1, p. 14; Attachment 10)
48. The facility is designed to accommodate the Town and local emergency service providers and a minimum of three wireless carriers. The tower and its foundation could also be designed to be extended up to 20-feet. (Applicant 1, p. 14; Tr 1, p. 30)

Cellco Existing and Proposed Wireless Services

49. Cellco is experiencing significant increase in network demand within the Cheshire Town center and the area east of the business district during peak usage times. Cellco is also experiencing coverage gaps along the eastern portion of Route 68 within its 700 MHz, 850 MHz, 1900 MHz and 2100 MHz frequencies. Deficient wireless service in the area was confirmed through propagation modeling, drive test analysis, and an analysis of ineffective attempts and dropped call data in the Voice over LTE wireless system. (Applicant 1, p. 11; Cellco 2, Response 6, Response 9; Tr. 1, p. 54)
50. Cellco designs its network using a -95 dB Reference Signal Received Power (RSRP) standard for reliable in-vehicle service and -85 dB RSRP standard for reliable in-building service. (Cellco 2, Response 4)

51. Cellco's existing Cheshire CT facility located at 751 Higgins Road (Alpha Sector) is currently operating at capacity limits in the 700 MHz, 850 MHz, 1900 MHz and 2100 MHz frequency range. The proposed facility would provide capacity relief. (Cellco 2, Response 11)
52. The proposed site would also provide capacity relief to the existing wireless facilities located to the west of the proposed facility and improved coverage to the eastern-central portion of Cheshire, including the eastern portion of Route 68 and the surrounding local roadways. (Applicant 1, p. 4; Attachment 1; Tr. 1, p. 41, p. 55, pp. 59-60)
53. The proposed facility would provide both coverage and capacity relief in the 700 MHz, 850 MHz, 1900 MHz and 2100 MHz frequencies. The table below indicates Cellco's approximate existing coverage gaps in miles for portions of Route 10, Route 68, and the overall proposed coverage footprint in square miles:

Street Name	700 MHz Coverage Gap	1900 MHz Coverage Gap	1900 MHz Coverage Gap	2100 MHz Coverage Gap
CT-Route 10	0 miles	0 miles	0 miles	0.4 miles
CT-Route 68	0.4 miles	2.7 miles	3.3 miles	4.2 miles
State Road Total	0.4 miles	2.7 miles	3.3 miles	4.6 miles
Proposed Site Coverage footprint	36 square miles	29 square miles	4 square miles	7 square miles

(Cellco 2, Response 9)

54. Cellco would provide voice and data services over its 700 MHz, 850 MHz, 1900 MHz, 2100 MHz and 3550 MHz frequency bands. Cellco's proposed equipment installation would provide 5G service over its 850 MHz and 2100 MHz frequency bands. (Cellco 2, Response 14, Response 7)
55. The proposed facility would interact with surrounding existing Cellco facilities as shown in the following table:

Cellco Site Designation	Site Address	Distance/direction from Proposed Site	Antenna Height (agl)	Structure Type
Cheshire Ct	751 Higgins Road	2.0 miles Southwest	252 Feet	Self-supporting Lattice tower
Cheshire CT SC1	199 Highland Avenue	0.5 miles Northwest	26 Feet	Utility Pole
Cheshire NE CT	500 Highland Avenue	1.0 miles North	122 Feet	Monopole
Cheshire North CT	1338 Highland Avenue	2.8 miles North	70 Feet	Silo
Cheshire SC02 CT	525 S Main Street	0.8 miles Southwest	24 Feet	Utility Pole
Oakdale CT	60 Gaylord Farm Road	2.5 miles Southeast	110 Feet	Water Tank

(Applicant 1, Attachment 2; Cellco 2, Response 10)

56. Cellco would locate its antennas at the 90-foot centerline height. (Applicant 1, p. 15; Attachment 3)

57. Installing the antennas at 80 feet (or ten feet lower) would affect Cellco's ability to meet its wireless service goals for coverage, handoff, and capacity. (Cellco 2, Response 12)

Site Selection

58. Cellco had been investigating sites within the eastern central Cheshire and northwest Wallingford area since 2012. Cellco established a search ring for the proposed service area within the area of the proposed facility with its center located approximately 1.17 miles east of the proposed site. The search ring would have a radius of 0.5 miles. (Applicant 1, Attachment 2 – Site Search Summary p. 2)
59. After determining there were no suitable structures within the search area, Cellco searched for properties suitable for tower development. Cellco investigated 2 parcels/areas, one of which was suitable for site development. The two sites and their determinations are as follows:
- a) **185 Academy Road, Cheshire, CT:** - 8.1 acre residentially-zoned property hosting a church. Cellco's engineers determined that this site would provide the adequate coverage. Cellco approached Diamond with interest in constructing a facility since Diamond had a pre-existing lease agreement with the Cheshire United Methodist Church. This is the proposed facility;
 - b) **300 South Meriden Road, Cheshire, CT:** - 36-acre residentially-zoned property hosting a commercial office building. The property owner was not interested in a potential lease.

(Applicant 1, p. 14; Attachment 2 – Site Search Summary)

60. On November 15, 2015, Diamond entered into a lease agreement with the United Methodist Church. Cellco approached Diamond with interest in locating its equipment on the proposed facility. (Applicant 1, Attachment 2, Site Search Summary)
61. Although it is technically possible to provide wireless service to the target service area using numerous small cells, the actual number of small cells necessary would be significant due to the large size of the service area to be covered. Cellco currently has two small cells along Main Street in Cheshire, however, they are not sufficient by themselves to provide the required the coverage. The use of a macro-cell at the proposed site is the most efficient and cost-effective method for providing a large coverage footprint. (Applicant 1, p. 13; Tr. 1 pp. 25-26)

Facility Description

62. The proposed site is located on an approximately 8.1-acre parcel at 185 Academy Road, also known as State Route 68, in Cheshire. The parcel is owned by the Cheshire United Methodist Church. The proposed site location is depicted on Figure 1. (Applicant 1, p. 4; Attachment 2 – Site Search Summary, p. 2)
63. The subject property is zoned Residential (R-40) and currently hosts the United Methodist Church building and its parking lot. (Applicant 1, p. 20; Attachment 2, p. 2)
64. Land use immediately surrounding the subject parcel is predominately residential to the north, west and east of the property. The parcel is bounded immediately to north by Route 68 and the Cheshire Hillside Cemetery to the south and southwest. (Applicant 1, p. 14; Attachment 2, p. 2; Applicant 1, Site Evaluation Report; Attachment 3, Site Location Map)

65. The proposed tower site is located in a landscaped area adjacent to a parking lot in the southern portion of the property, at an elevation of approximately 242.7 feet above mean sea level (amsl). (Applicant 1, Attachment 2, Site Evaluation Report, pp. 1-2; Attachment 3, Site Location Map)
66. The proposed facility would consist of a 95-foot stealth tree monopine within a 52-foot by 50-foot leased area. The tower would be designed to support a minimum of three wireless carrier antennas as well as municipal emergency services antennas. (Refer to Figure 3). (Applicant 1, p. 15; Attachment 3, Facilities and Equipment Description)
67. The monopine would have faux branches extending 4 feet above the top of the pole bringing the total height to 99-feet agl. The monopine would be designed with a yield point at 55 feet agl. (Applicant 1, p. 22; Attachment 3, p. 1)
68. The monopine would have a smooth galvanized finish and will be painted brown. (Applicant 4, Response 8)
69. Cellco's antennas would be wrapped in green socks and all other appurtenances would be painted brown to match the tower. This would apply to all other carriers. (Applicant 1, Attachment 4, Construction Drawings Sheet CP-1)
70. Cellco would install six panel antennas and nine remote radio heads on triple T-arm antenna mounts at a centerline height of 90 feet agl. (Applicant 1, p. 15; Attachment 3, p. 1; Attachment 4, Construction Drawings Sheet CP-1)
71. A 42-foot by 50-foot fenced equipment compound would be established at the base of the tower. The size of the equipment compound would be able to accommodate the equipment of three wireless carriers. Cellco would install one equipment cabinet on a 9-foot by 9-foot concrete pad with a protective ice canopy, a 30-kilowatt propane fueled emergency backup generator on a 4-foot by 8-foot 6-inch concrete pad and a 500-gallon propane tank on a 4-foot by 10-foot concrete pad, all located within the northern part of the equipment compound. (Refer to Figure 2) (Applicant 1, p. 15, Attachment 3 p. 1 – Attachment 4, Construction Drawings Sheet CP-1)
72. The proposed equipment compound will be surrounded by an eight-foot high wood shadow box fence. The proposed compound fence would have a 12-foot wide wooden gate that would be locked for security purposes. (Applicant 1, p.24; Attachment 3 p.1; Attachment 4 Construction Drawings Sheet CP-1; Applicant 4, Response 10)
73. Access to the tower site would be via the existing 20-foot wide paved driveway from 185 Academy Road extending approximately 480-feet in a southeast direction through the existing paved parking area to the proposed site. (Applicant 1, p. 15, p. 23, Attachment 3, p. 1; Applicant 4, Response 18)
74. Utilities would extend underground from the western side of the compound to an existing utility pole (CL&P #724) located about 8-feet from the southwestern corner of the proposed compound. Existing overhead utility lines would be rerouted overhead from CL&P #724 to a new utility pole which would be added at the southeastern corner of the compound and then north to an existing utility pole located along Academy Road. (Applicant 1, p.15, Attachment 3, p. 2, Site Evaluation Report, p.2; Attachment 4, Construction Drawings Sheet CP-1)

75. The nearest property boundary from the base of the proposed tower is approximately 40 feet to the south of the facility abutting the Cheshire Hillside Cemetery. (Applicant 1, Attachment 3, Site Impact Statement)
76. There are approximately 16 residential structures within 1,000 feet of the proposed tower site. The nearest residence is located at 245 Academy Road, approximately 310 feet east of the tower site. (Applicant 1, Attachment 3, Site Impact Statement, Construction Drawings Sheet CP-1)
77. Site preparation and engineering would commence following Council approval of a Development and Management Plan (D&M Plan) and are expected to be completed within four to five weeks. Monopine and equipment installation are expected to take an additional three weeks after the tower and equipment pads are installed. After the equipment installation, cell site integration and system testing would require about two additional weeks. (Applicant 1, p. 26)
78. The estimated cost of the proposed facility is:
- | | |
|-----------------------------------|------------------|
| Tower and Foundation | \$ 115,000 |
| Site Development | \$ 45,000 |
| Utility Installation | \$ 25,000 |
| Generator, Antennas and Equipment | \$ 200,000 |
| Total Estimated Costs | \$385,000 |
- (Applicant 1, p.26)
79. Diamond would recover construction costs associated with the facility by the revenue generated from leasing space on the facility to other wireless providers. (Applicant 4, Response 2)
80. Cellco would recover the costs of its equipment through customer subscriptions. (Cellco 2, Response 1; Tr. 1, pp. 26-27)

Public Safety

81. The Wireless Communications and Public Safety Act of 1999 (911 Act) was enacted by Congress to promote and enhance public safety by making 9-1-1 the universal emergency assistance number, by furthering deployment of wireless 9-1-1 capabilities, and by encouraging construction and operation of seamless ubiquitous and reliable networks for wireless services. (Council Administrative Notice Item No. 6 - Wireless Communications and Public Safety Act of 1999)
82. The proposed facility would be in compliance with the requirements of the 911 Act and would provide Enhanced 911 services. (Applicant 1, p. 12)
83. Wireless carriers have voluntarily begun supporting text-to-911 services nationwide in areas where municipal Public Safety Answering Points (PSAP) support text-to-911 technology. Text-to-911 will extend emergency services to those who are deaf, hard of hearing, have a speech disability, or are in situations where a voice call to 911 may be dangerous or impossible. However, even after a carrier upgrades its network, a user's ability to text to 911 is limited by the ability of the local 911 call center to accept a text message. The FCC does not have the authority to regulate 911 call centers; therefore, it cannot require them to accept text messages. (Council Administrative Notice Item No. 21 – FCC Text-to-911: Quick Facts & FAQs)

84. Cellco's proposed equipment installation would be capable of supporting text-to-911 service. (Cellco 2, Response 3)
85. Pursuant to the Warning, Alert and Response Network Act of 2006, "Wireless Emergency Alerts" (WEA) is a public safety system that allows customers who own enabled mobile devices to receive geographically-targeted, text messages alerting them of imminent threats to safety in their area. WEA complements the existing Emergency Alert System that is implemented by the FCC and FEMA at the federal level through broadcasters and other media service providers, including wireless carriers. (Council Administrative Notice No. 5 – FCC WARN Act)
86. Cellco's proposed equipment installation would comply with the Warning, Alert and Response Network Act of 2006. (Applicant 1, p. 12; Cellco 2, Response 19)
87. Pursuant to C.G.S. §16-50p(a)(3)(G), the tower would be constructed in accordance with the current governing standard in the State of Connecticut for tower design in accordance with the currently adopted International Building Code. (Applicant 1, Attachment 4 Construction Drawings sheet T-1, Applicant 4, Response 6; Tr. 1 p.16)
88. The proposed tower would not require notice to the Federal Aviation Administration or constitute an obstruction or hazard to air navigation and therefore would not require any obstruction marking or lighting. (Applicant 1, p. 19)
89. Cellco's equipment cabinet would be equipped with silent intrusion and system alarms. Cellco would have personnel available on a 24-hour basis to receive and respond to incoming alarms. (Applicant 4, Response 10)
90. The tower setback radius* would extend beyond the boundary of the subject property to the south by 55-feet. Diamond would design a tower yield point at the 55-foot above ground level of the tower, to ensure the tower setback radius remains within the boundaries of the subject property. (Applicant 1, p. 15, p. 22, Attachment 4, Construction Drawings Sheet SP-1; Tr 1, p. 24)

*The horizontal distance equal to the tower height that extends radially from the center of the tower.
91. Diamond would secure the site with a temporary construction fence to protect public safety during church business hours and over the weekend. (Tr. 1, p. 14)
92. Construction noise is exempt from the DEEP Noise Control Regulations §22a-69-1.8(g), which includes, but is not limited to, "physical activity at a site necessary or incidental to the erection, placement, demolition, assembling, altering, blasting, cleaning, repairing, installing, or equipping of buildings or other structures, public or private highways, roads, premises, parks, utility lines, or other property." (R.C.S.A. §22a-69-1.8(g))
93. The cumulative worst-case maximum power density from the radio frequency emissions from the operation of all approved antennas and Cellco's proposed antennas is 9.4% of the standard* for the General Public/Uncontrolled Maximum Permissible Exposure, as adopted by the FCC, at the base of the proposed tower. This calculation was based on methodology prescribed by the FCC Office of Engineering and Technology Bulletin No. 65E, Edition 97-01 (August 1997) that assumes all antennas in a sector would be pointed at the base of the tower and all channels would be operating simultaneously, which creates the highest possible power density levels. Under normal operation, the antennas would be oriented outward, directing radio frequency emissions away from the tower, thus resulting in significantly lower power density levels in areas around the tower.

*This includes a 10 dB off-beam pattern loss to account for the lower relative gain below the antennas.

(Applicant 1, Attachment 7; Council Administrative Notice Item No. 2 – FCC OET Bulletin No. 65)

Emergency Backup Power

94. In response to two significant storm events in 2011, Governor Malloy formed a Two Storm Panel (Panel) that was charged with an objective review and evaluation of Connecticut's approach to the prevention, planning and mitigation of impacts associated with emergencies and natural disasters that can reasonably be anticipated to impact the state. (Final Report of the Two Storm Panel, (Council Administrative Notice Item No. 43)
95. Consistent with the findings and recommendations of the Panel, and in accordance with C.G.S. §16-50//, the Council, in consultation and coordination with DEEP, DESPP and PURA, studied the feasibility of requiring backup power for telecommunications towers and antennas as the reliability of such telecommunications service is considered to be in the public interest and necessary for the public health and safety. (Council Administrative Notice Item No. 26 – Council Docket No. 432)
96. Commercial Mobile Radio Service (CMRS) providers are licensed by and are under the jurisdiction and authority of the FCC. At present, no standards for backup power for CMRS providers have been promulgated by the FCC. Every year since 2006, AT&T, Sprint, T-Mobile, and Verizon have certified their compliance with the CTIA Business Continuity/Disaster Recovery Program and the Communications Security, Reliability and Interoperability Council standards and best practices to ensure network reliability during power outages. (Council Administrative Notice Item No. 26 – Council Docket No. 432)
97. For backup power, Cellco proposes a 30-kilowatt propane-fueled generator for its own use. Cellco would also install an approximately 500-gallon propane fuel tank to provide approximately five days of run time at 75% electrical load, before it requires refueling. (Cellco 2, Response 16; Tr. 1, p. 22)
98. Cellco would also have a battery backup system integrated into its equipment cabinet in order to avoid a "re-boot" condition during the generator start-up delay period. The battery backup system alone could provide up to four hours of backup power. (Cellco 2, Response 17)
99. Cellco does not anticipate a need to increase generator capacity in the foreseeable future. (Tr. 1, p. 18)
100. The proposed backup generator would have a secondary containment basin to collect any oil or coolant leaks. (Tr. 1, p. 21 and 23)
101. The generator would be remotely tested and monitored on a weekly basis to ensure proper operation. (Applicant 1, p. 19; Attachment 5, p. 1-2)
102. According to R.C.S.A. §22a-69-1.8, noise created as a result of, or relating to, an emergency, such as an emergency backup generator, is exempt from the DEEP Noise Control Regulations. (R.C.S.A. §22a-69-1.8)

103. Pursuant to R.C.S.A. §22a-174-3b, the generator would be managed to comply with DEEP's "permit by rule" criteria. Therefore, the generator would be exempt from general air permit requirements. (R.C.S.A. §22a-174-3b)

Environmental Considerations

104. No Prime Farmland soils would be impacted by the construction of the proposed facility. (Applicant 1, p. 14; Attachment 6 - Farmland Soils Map)
105. SHPO determined that the proposed facility would have no adverse effects to sites listed on or eligible for listing on the National Register of Historic Places. (Applicant 1, Attachment 9, SHPO Determination dated July 17, 2020)
106. The Inland Wetlands and Watercourses Act (IWWA), CGS §22a-36, *et seq.*, contains a specific legislative finding that the inland wetlands and watercourses of the state are an indispensable and irreplaceable but fragile natural resource with which the citizens of the state have been endowed, and the preservation and protection of the wetlands and watercourses from random, unnecessary, undesirable and unregulated uses, disturbance or destruction is in the public interest and is essential to the health, welfare and safety of the citizens of the state. (CGS §22a-36, *et seq.*)
107. The IWWA grants regulatory agencies with the authority to regulate upland review areas in its discretion if it finds such regulations necessary to protect wetlands or watercourses from activity that will likely affect those areas. (CGS §22a-42a)
108. The IWWA forbids regulatory agencies from issuing a permit for a regulated activity unless it finds on the basis of the record that a feasible and prudent alternative does not exist. (CGS §22a-41)
109. The nearest wetland to the proposed site is located along the southeastern boundary of the parcel and is approximately 105 feet east of the proposed facility. (Applicant 1, p. 25, Attachment 3, Site Impact Statement, Attachment 6, Wetland Inspection Report, p.2)
110. The proposed project would be constructed consistent with the *2002 Connecticut Guidelines for Soil Erosion and Sedimentation Control*. (Applicant 1, Attachment 6, Wetland Inspection Report p. 2)
111. Diamond would install silt fencing in the rear (east) and the southern side of the equipment compound which would be monitored and maintained throughout the construction period. (Applicant 1, Attachment 4, Construction Drawings Sheet CP-1; Tr. 1, p. 16)
112. The proposed site is located on mostly level ground with a northwest to southeast slope of approximately 0.5% - 1% across the equipment compound. Development of the site would require about 100 cubic yards of cut and 50 cubic yards of stone fill for the compound base. The utility trenching would require about 10 cubic yards of cut. (Applicant 1, p. 15, Attachment 3, Site Evaluation Report p.2; Attachment 4, Construction Drawings Sheet SP-1)
113. The proposed site is not located within the Federal Emergency Management Agency designated 100-year or 500-year flood zones. (Applicant 4, Response 5)
114. The proposed site is not located within a state-designated aquifer protection area. (Applicant 1, p. 22, DEEP Aquifer Protection Area Maps)

115. The proposed facility is not located within a DEEP Natural Diversity Database buffer area. (Applicant 1, p.17; Attachment 5, p. 3; Attachment 6, Avian Resources Evaluation, p.5; Attachment 9; NDDDB Map Cheshire)
116. Development of the proposed site would not require the removal of any trees with a diameter of six inches or greater at breast height. (Applicant 1, p. 21, Attachment 3, Site Evaluation Report, p. 3, Site Impact Statement, Tree Inventory; Attachment 4, Construction Drawings Sheet SP-1)
117. Connecticut is within the range of the northern long-eared bat (NLEB), a federally-listed threatened species and state-listed endangered species. There are no known NLEB hibernacula or known maternity roost trees within 0.25 miles and 150-feet, respectively, of the proposed site. The U.S. Fish and Wildlife Service determined that the proposed facility would not have an impact on the NLEB. (Applicant 1, Attachment 6, Avian Resources Evaluation p. 6)
118. The nearest Important Bird Area (“IBA”) to the proposed site is The Naugatuck State Forest in Naugatuck, Oxford, Beacon Falls, and Bethany, located approximately 8.1 miles to the southwest. (Applicant 1, Attachment 6, Avian Resources Evaluation p. 1)
119. The proposed facility would comply with the United States Fish and Wildlife Service guidelines for minimizing the potential for telecommunications towers to impact bird species. (Applicant 1, Attachment 6, Avian Resources Evaluation p. 9)
120. Diamond does not anticipate the need for blasting at the proposed site. (Applicant 4, Response 4)

Visibility

121. Diamond used a combination of predictive computer model, in-field analysis, and review of various data sources to evaluate the visibility of the proposed facility on both a quantitative and qualitative basis. (Applicant 1, Attachment 8, p. 2)
122. On December 11, 2020, Diamond conducted a crane test and field reconnaissance. The crane test consisted of attaching a brightly colored flag to a crane boom and raising it to a height of approximately 99 feet agl at the proposed tower location. Weather conditions were favorable for the in-field activity with calm winds and partly cloudy skies. (Applicant 1, Attachment 8, p. 3-4)
123. Information obtained during the field reconnaissance was incorporated into mapping data layers, including observations of the field reconnaissance, photo-simulation locations, areas that experienced land use changes, and places where the initial modeling was found to over- or under-predict visibility to produce a final predictive viewshed map for areas within a two-mile radius of the site. (Applicant 1, Attachment 8, p. 4-7)
124. Based on the final viewshed analysis, the proposed tower would be visible year-round from approximately 7 acres within the study area (refer to Figure-11). This would be about 0.1 percent of the study area.* The tower would be seasonally visible (leaf-off conditions) from an approximately 39 acres or about 0.5 percent of the study area. (Applicant 1, Attachment 8, p. 7)

*The study area is comprised of 8,042 acres.
(Applicant 1, Attachment 8, Viewshed Maps)
125. Most areas from which the facility would be visible are within approximately 0.5-miles of the site. This area would include portions of Academy Road to the northwest and Cheshire Hillside Cemetery to the south and southwest. Year-round visibility of the facility would extend to

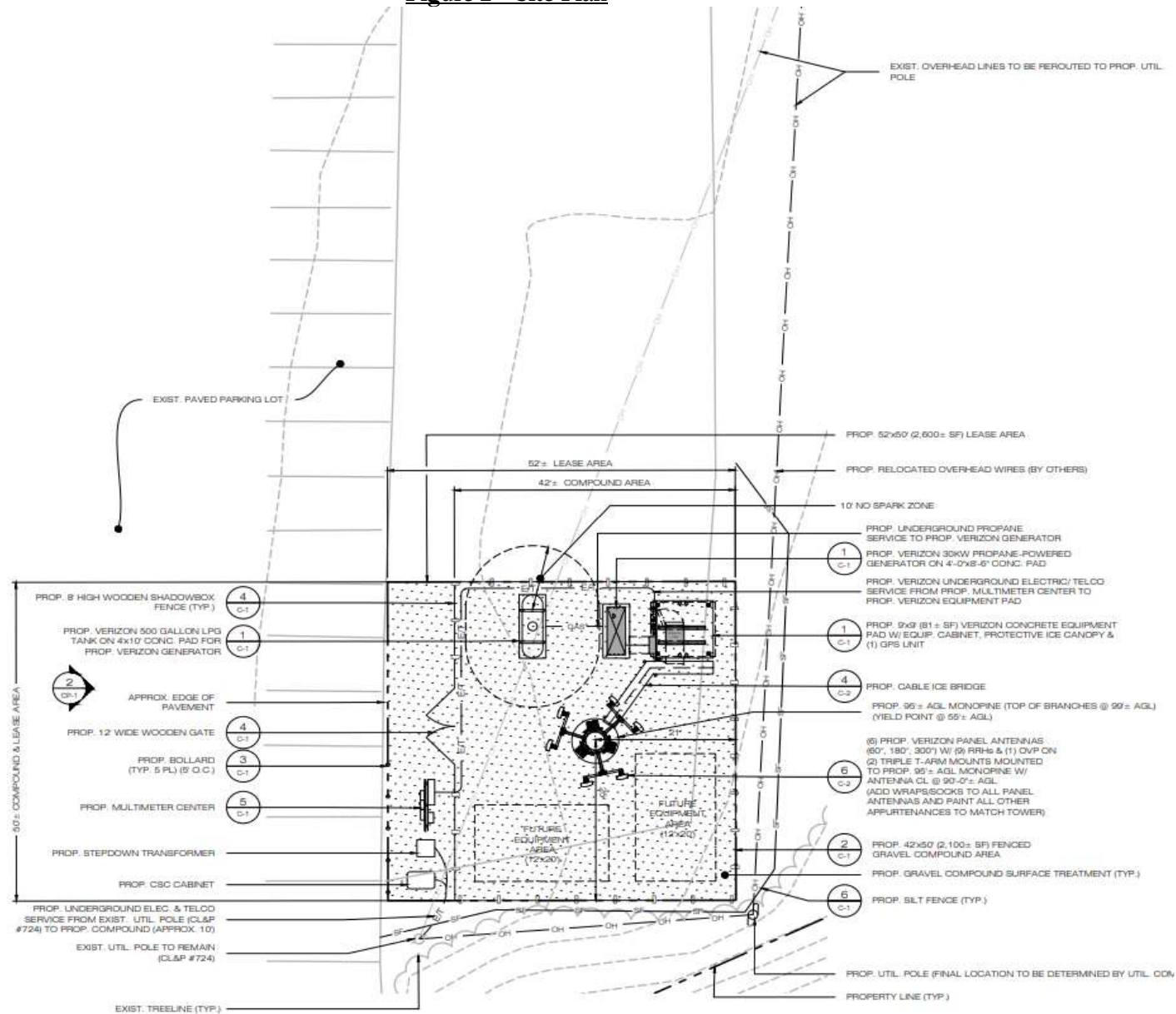
- Woodpond Road 0.28 miles to the southwest, Wallingford Road 0.4 miles west, South Main Street 0.43 miles west and Main Street 0.4 miles northwest of the proposed site. (Applicant 1, Attachment 8, p. 5-6)
126. Seasonally (i.e. under “leaf-off conditions) partially obstructed views of the facility in the immediate area of the site would extend northwest to Academy Road, southwest to Wallingford Road, west to Elm Street and northwest to Main Street and Highland Avenue. (Applicant 1, Attachment 8, p.5-6)
127. Pursuant to CGS §16-50p(a)(3)(F), no public schools or commercial child day care facilities are located within 250 feet of the site. The nearest building containing a school is Cheshire Academy located approximately 0.27 miles northwest of the proposed facility on Main Street. The nearest building containing a commercial child day care facility is the Doodlebugz Child Care Learning Center located approximately 0.45 miles northwest of the proposed facility at 150 Highland Avenue. No visibility of the tower is predicted from either the public school or the day care center. (Applicant 1, Attachment 8, p. 8)
128. There are no state or locally-designated scenic roads located within the two-mile study area. (Applicant 1, Attachment 5, Environmental Assessment Statement, p.1)
129. No landscaping is proposed. (Tr.1 p. 16)
130. There are no “blue-blazed” hiking trails maintained by the Connecticut Forest and Park Association within one-mile of the site. (Applicant 1, Attachment 5, Environmental Assessment Statement, p. 2-3)
131. The proposed monopine stealth design, relatively low height and the presence of mature trees in the immediate area and most of the study area assists in camouflaging the facility and minimizing its visual effect. (Applicant 1, p.17; Attachment 8)

Figure 1 – Aerial Map



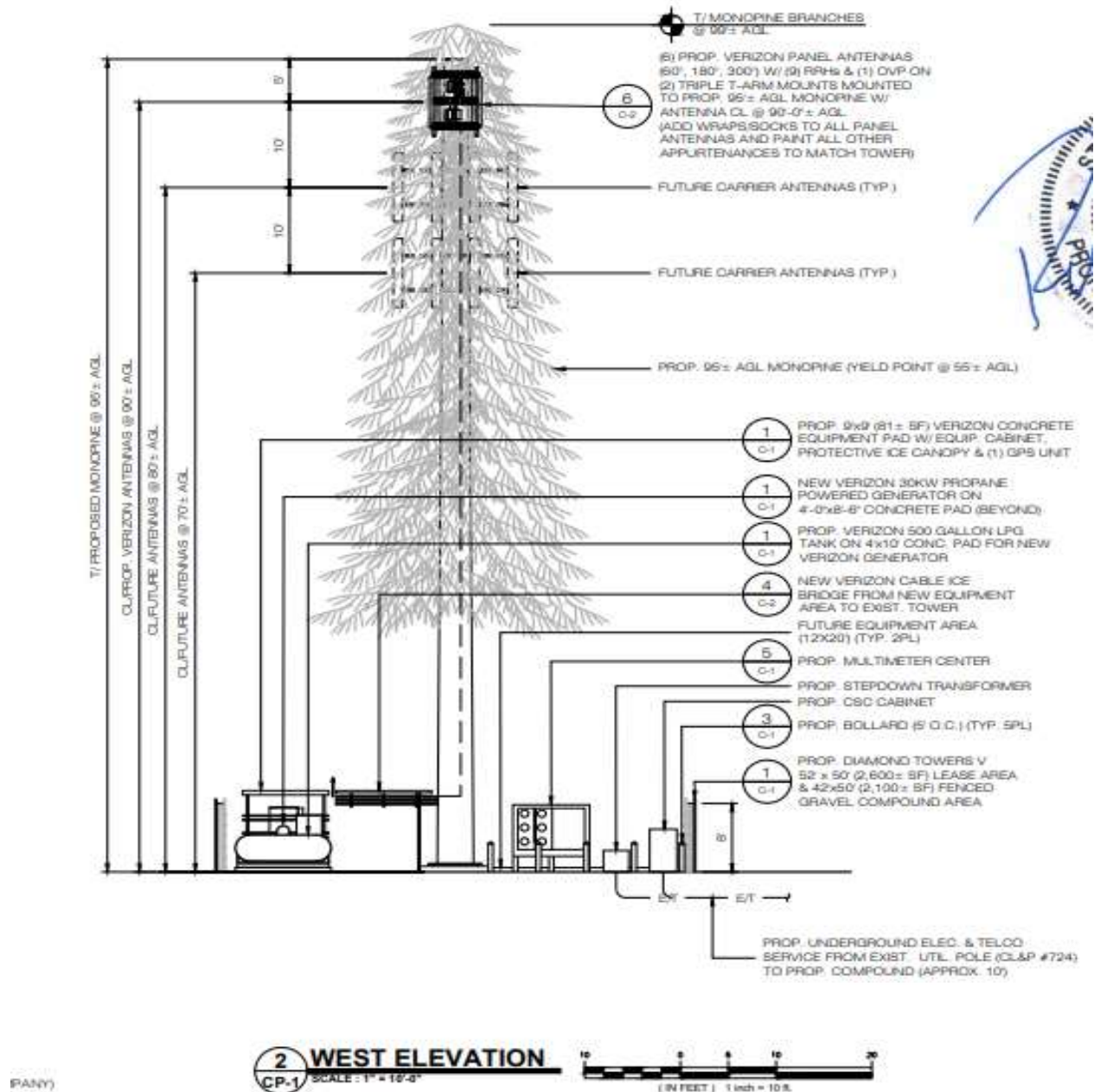
(Applicant 1, Attachment 4, Site Location Map)

Figure 2 – Site Plan



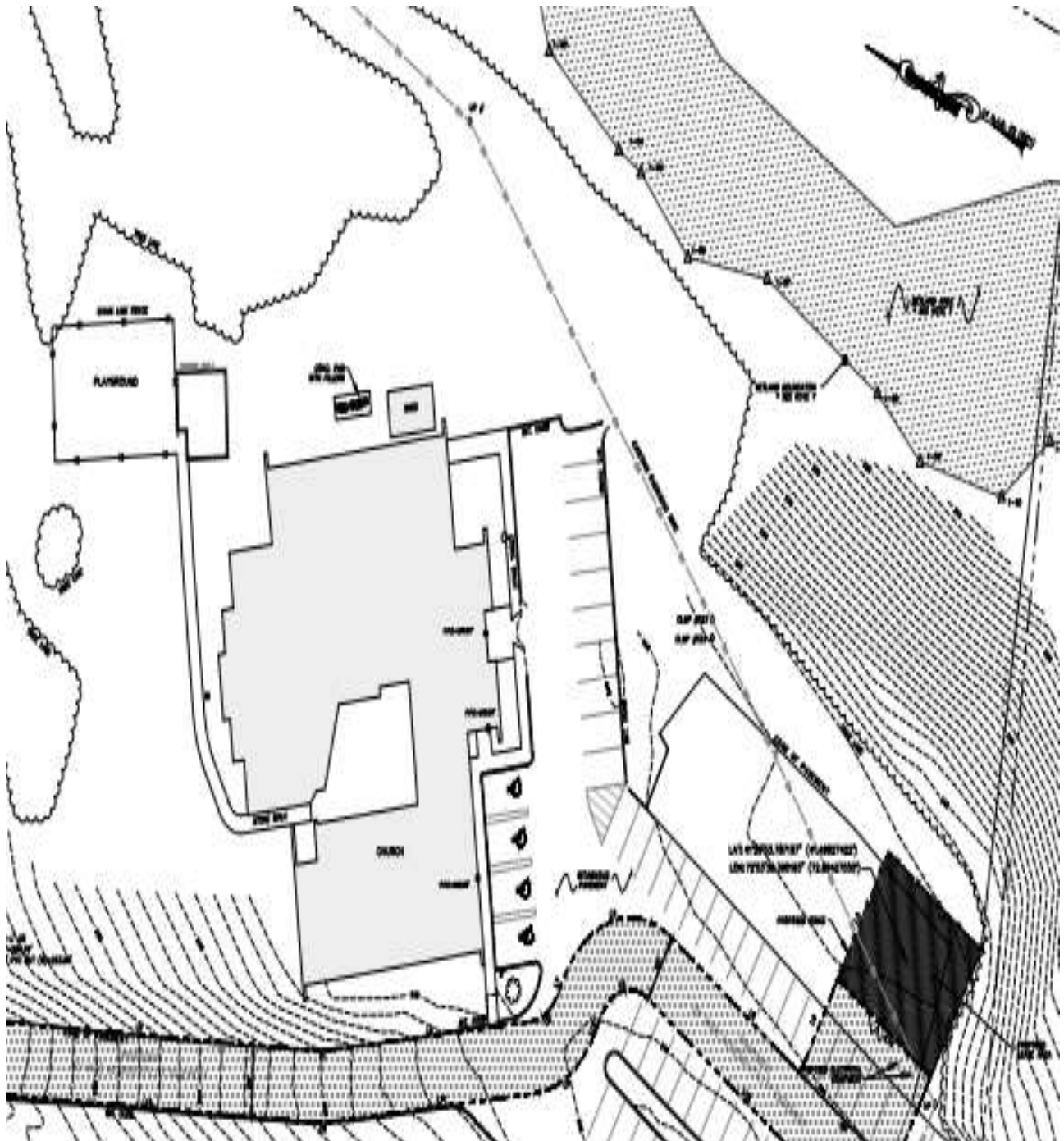
(Applicant 1, Attachment 4, Construction Drawing Sheet CP-1)

Figure 3 – Site Elevation



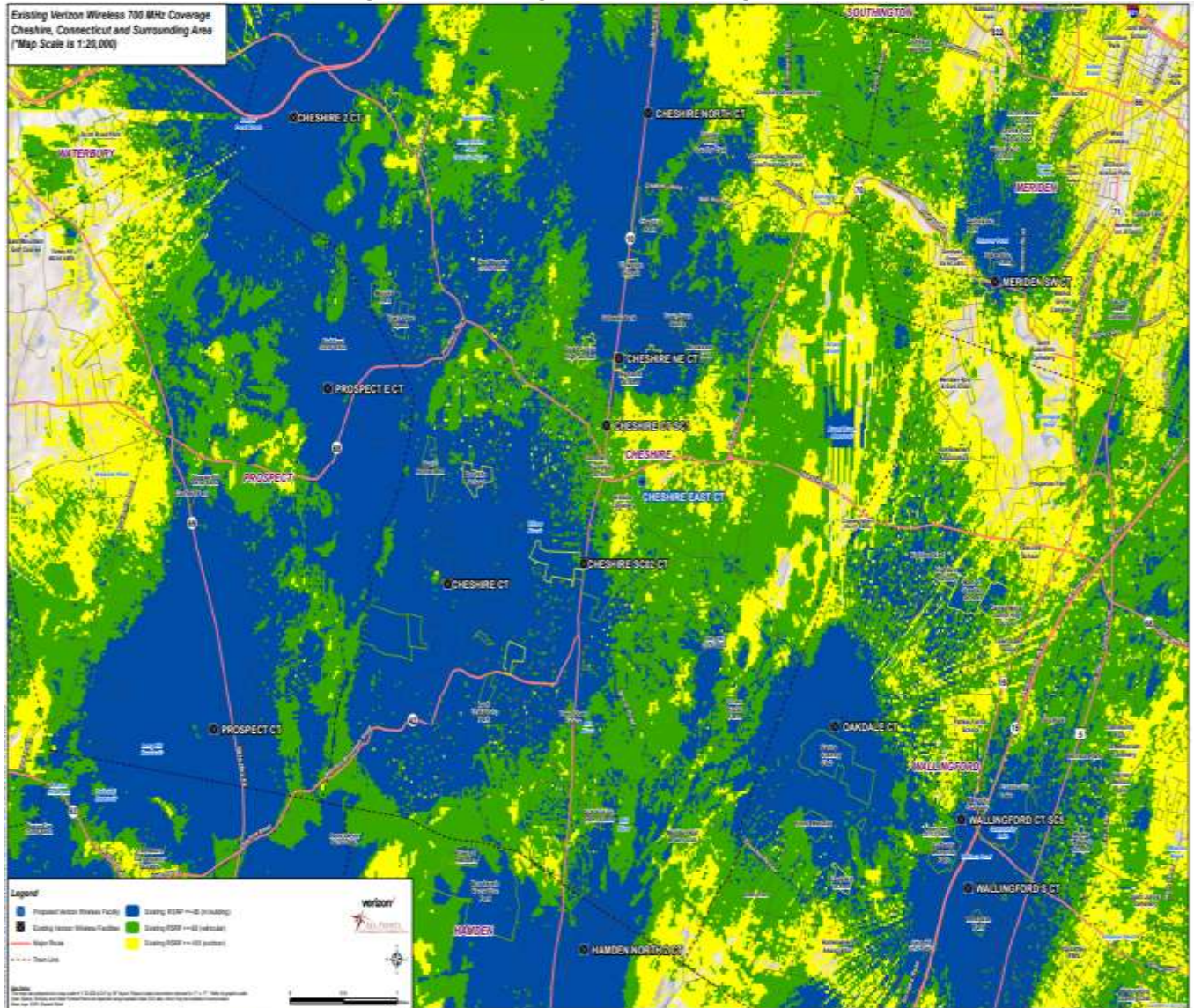
(Applicant 1, Attachment 4, Construction Drawing Sheet CP-1)

Figure 4 – Site Overview with Easements



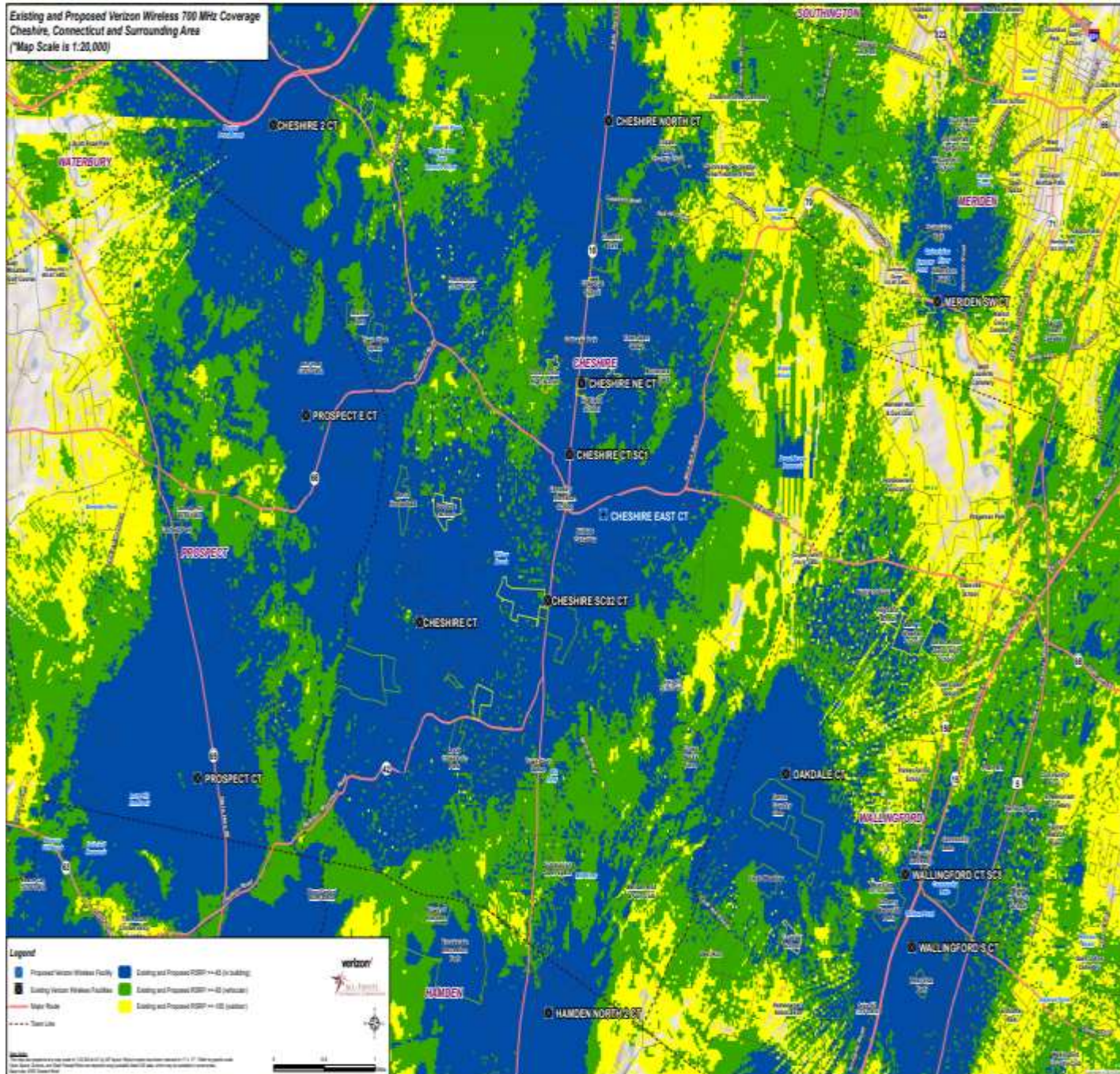
(Applicant 1, Attachment 4, Construction drawing sheet 2 of 2)

Figure 5 – Existing 700 MHz Coverage



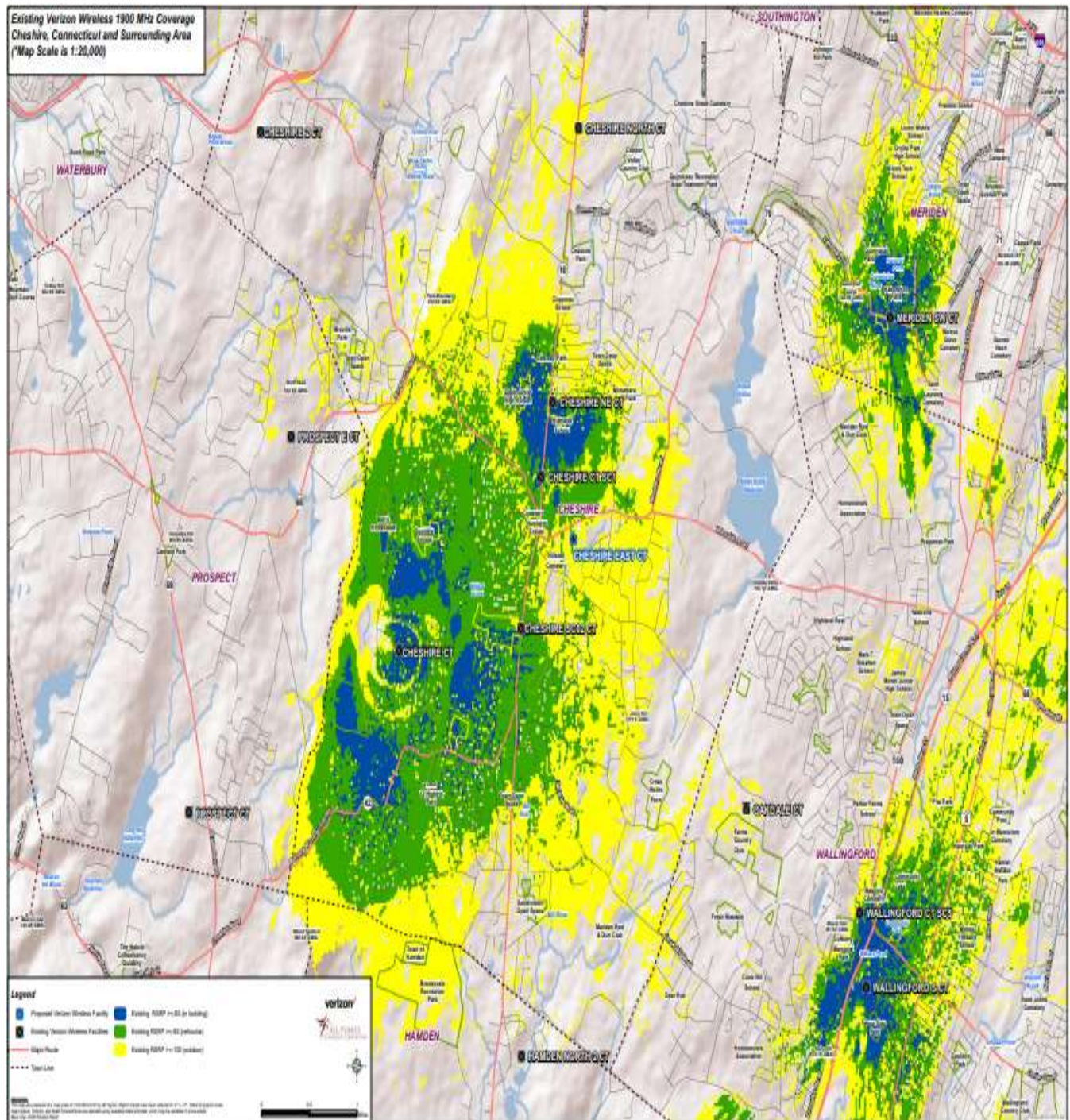
(Applicant 1, Attachment 1, Coverage Maps)

Figure 6 – Proposed 700 MHz Coverage with Existing Coverage



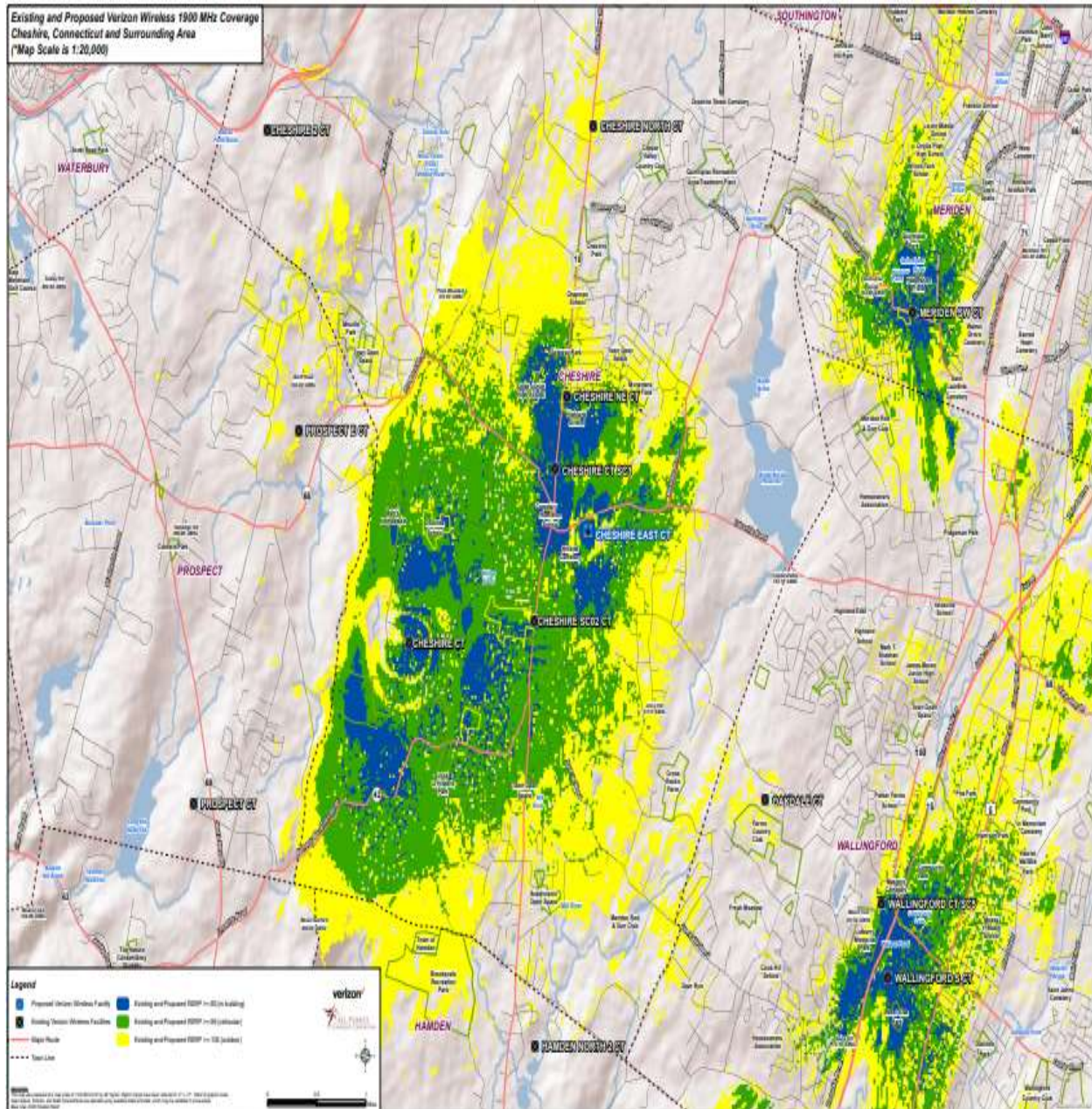
(Applicant 1, Attachment 1, Coverage Maps)

Figure 7 Existing 1900 MHz Coverage



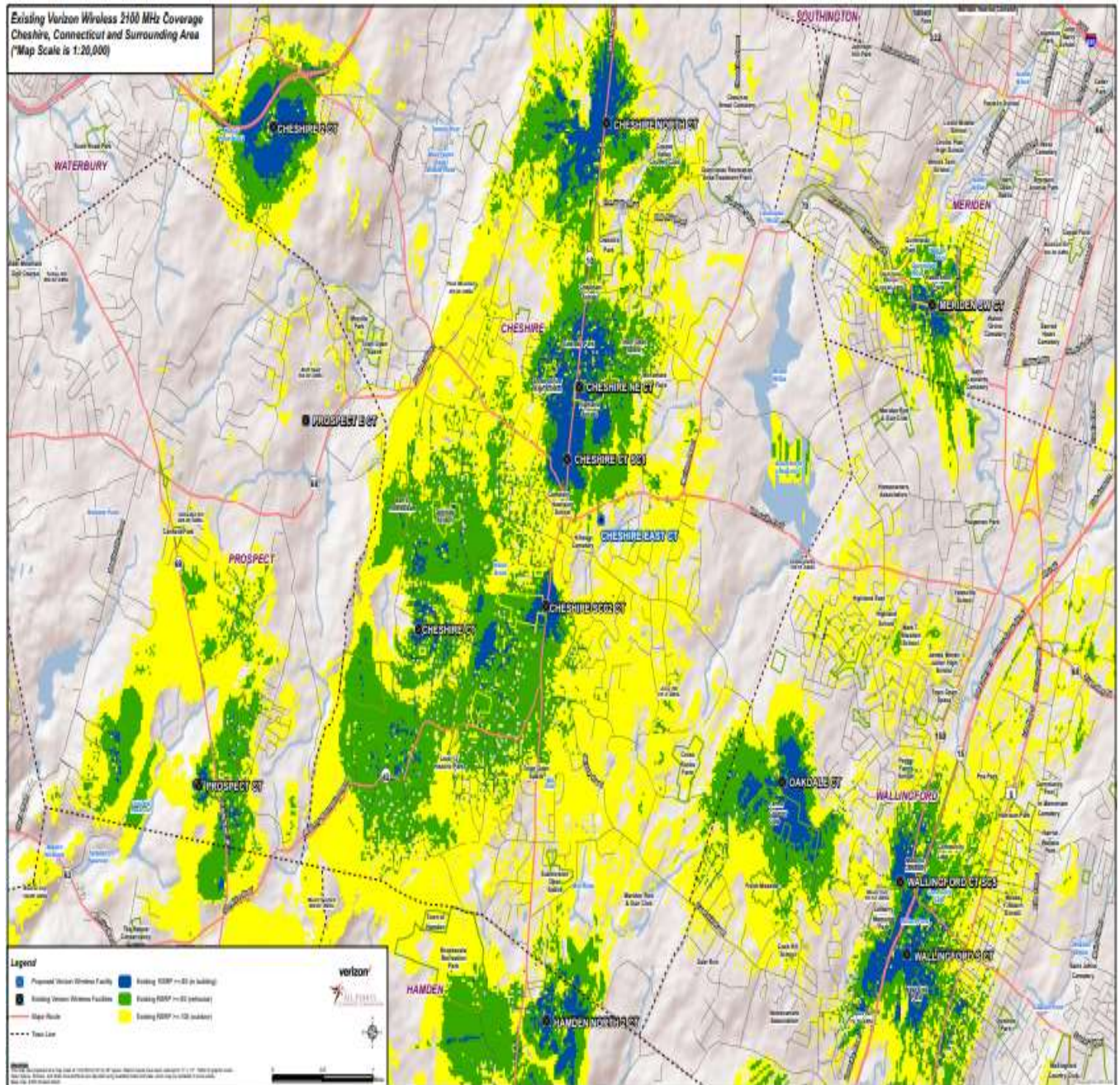
(Applicant 1, Attachment 1, Coverage Maps)

Figure 8 Proposed 1900 MHz Coverage with Existing Coverage



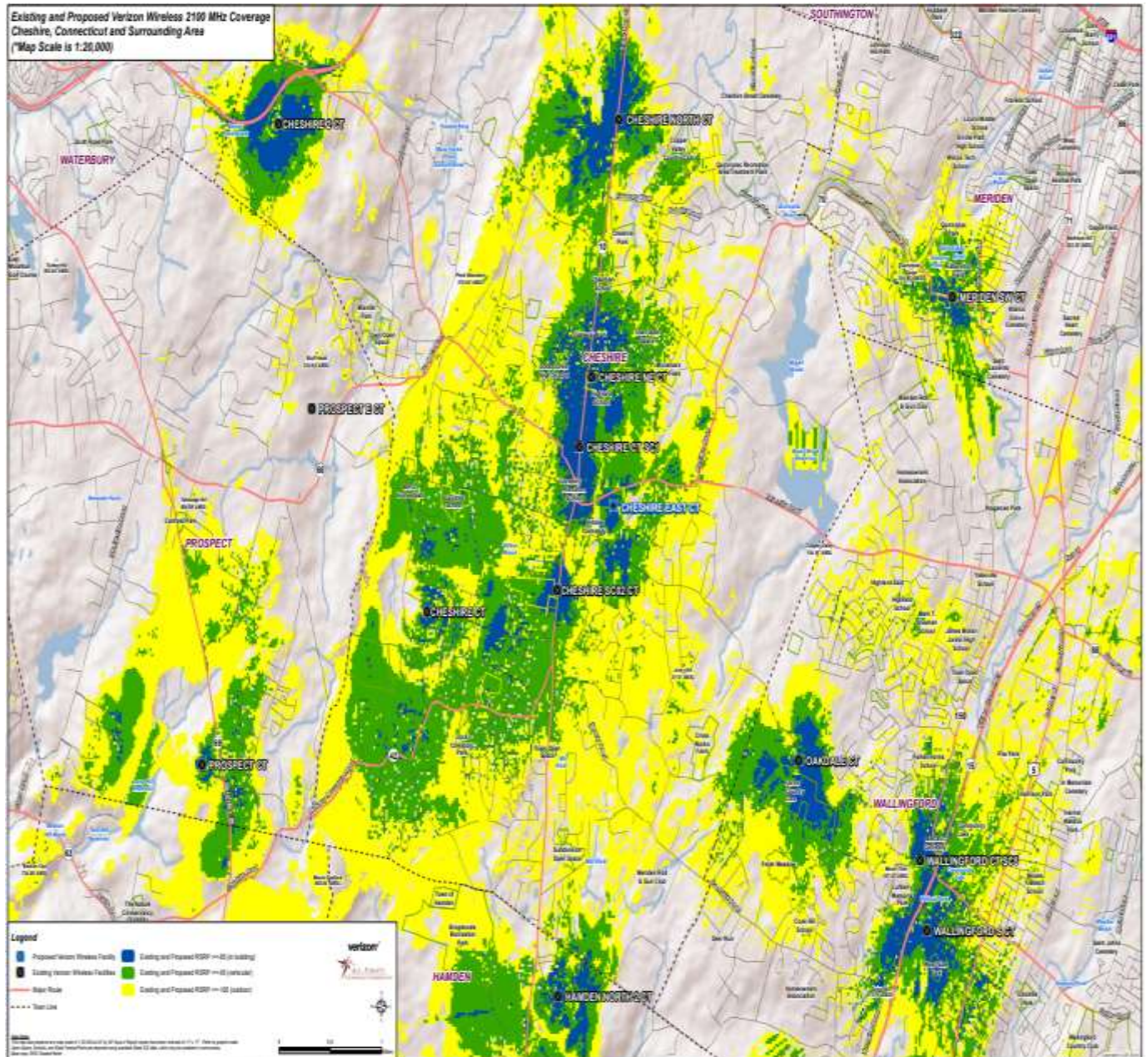
(Applicant 1, Attachment 1, Coverage Maps)

Figure 9 – Existing 2100 MHz Coverage



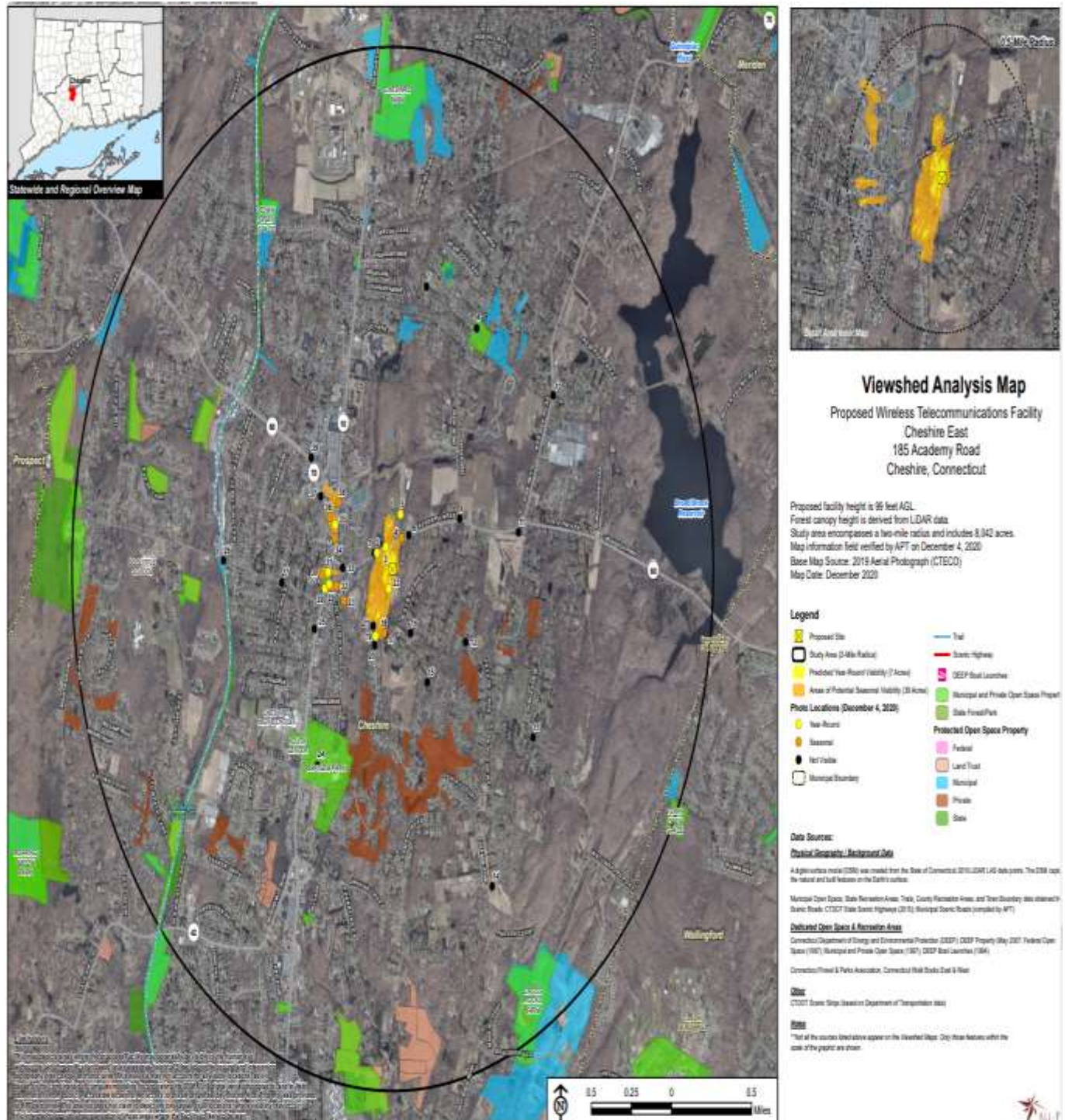
(Applicant 1, Attachment 1, Coverage Maps)

Figure 10 – Proposed 2100 MHz Coverage with Existing Coverage



(Applicant 1, Attachment 1, Coverage Maps)

Figure 11 – Visibility/Viewshed Analysis Map



(Applicant 1, Attachment 8 – Viewshed Analysis Map)

Figure 12 – Photolog

Photo	Location	Orientation	Distance to Site	Visibility
1	Academy Road*	Southeast	± 0.13 Mile	Not Visible
2	Academy Road	Southeast	± 0.12 Mile	Year Round
3	Academy Road	Southeast	± 488 Feet	Year Round
4	Academy Road	Southwest	± 0.13 Mile	Seasonal
5	Academy Road	Southwest	± 0.21 Mile	Year Round
6	Academy Road	Southwest	± 0.17 Mile	Not Visible
7	Greenbriar Drive	Southwest	± 1.10 Miles	Not Visible
8	McNamara Field	Southwest	± 1.07 Miles	Not Visible
9	Wiese Road at Academy Road	Southwest	± 0.46 Mile	Not Visible
10	Cortland Circle at South Meriden Road	Southwest	± 1.20 Miles	Not Visible
11	Academy Road	Southwest	± 0.80 Mile	Not Visible
12	Village Drive at North Wood Court	Northwest	± 0.54 Mile	Not Visible
13	Wallingford Road at Sir Walter Drive	Northwest	± 1.09 Miles	Not Visible
14	Unnamed Road	Northwest	± 1.36 Miles	Not Visible
15	Woodpond Road at Wallingford Road	Northwest	± 0.48 Mile	Not Visible
16	Williamsburg Drive	Northwest	± 0.27 Mile	Not Visible

**Photograph was taken at 24 mm focal length.*
***Photograph was taken at 35 mm focal length.*

Photo	Location	Orientation	Distance to Site	Visibility
17	Wallingford Road	North	± 0.25 Mile	Not Visible
18	Wallingford Road	Northeast	± 0.25 Mile	Seasonal
19	Woodpond Road	Northeast	± 0.28 Mile	Year Round
20	Woodpond Road	Northeast	± 0.31 Mile	Not Visible
21	Wallingford Road**	Northeast	± 0.25 Mile	Not Visible
22	Cheshire Hillside Cemetery	Northeast	± 432 Feet	Year Round
23	Wallingford Road at Walnut Street	Northeast	± 0.33 Mile	Seasonal
24	Bartlem Recreation Area**	Northeast	± 0.88 Mile	Not Visible
25	South Main Street	Northeast	± 0.54 Mile	Not Visible
26	Cornwall Avenue**	East	± 1.05 Miles	Not Visible
27	Cornwall Avenue**	East	± 0.70 Mile	Not Visible
28	South Main Street	East	± 0.43 Mile	Year Round
29	Wallingford Road**	East	± 0.40 Mile	Year Round
30	111 Church Drive – First Congregational Church	East	± 0.44 Mile	Seasonal
31	South Main Street	East	± 0.40 Mile	Year Round
32	Elm Street	East	± 0.36 Mile	Seasonal
33	Academy Road at Elm Street**	East	± 0.31 Mile	Not Visible
34	Main Street	Southeast	± 0.38 Mile	Seasonal
35	Main Street	Southeast	± 0.40 Mile	Year Round
36	Main Street	Southeast	± 0.44 Mile	Seasonal
37	Main Street	Southeast	± 0.53 Mile	Not Visible
38	Highland Avenue	Southeast	± 0.42 Mile	Seasonal
39	West Main Street at Main Street	Southeast	± 0.67 Mile	Not Visible

**Photograph was taken at 24 mm focal length.*
***Photograph was taken at 35 mm focal length.*

(Applicant 1, Attachment 8, p. 5-6)

ATTACHMENT 1

CAA Comments to Council, dated April 15, 2021



TO: Robert J. Hannon, Connecticut Siting Council
Daniel P. Lynch, Jr., Connecticut Siting Council
John Morissette, Connecticut Siting Council
Louanne Cooley, Connecticut Siting Council
Michael Harder, Connecticut Siting Council
Quat Nguyen, Connecticut Siting Council
Edward Edelson, Connecticut Siting Council
Robert Silvestri, Connecticut Siting Council
Executive Director Melanie Bachman, Connecticut Siting Council

FROM: Kevin A. Dillon, A.A.E., Executive Director, Connecticut Airport Authority

DATE: April 14, 2021

RE: **DOCKET NO. 498** - Diamond Towers V, LLC application for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance, and operation of a telecommunications facility located at 185 Academy Road (Route 68/Route 70), Cheshire, Connecticut.

Dear Distinguished Members of the Connecticut Siting Council and Executive Director Bachman,

Thank you for the opportunity to provide comments regarding Docket No. 498.

Despite the preliminary evaluations that have already been completed, due to this proposed project's proximity to Meriden Markham Airport, the CAA requests that the proponents file Form FAA 7460, Notice of Proposed Construction or Alteration, with the Federal Aviation Administration. This is a necessary step so the FAA can determine if the project will result in a hazard to air navigation. We respectfully request that the proponents initiate the formal 7460 process to ensure the safety of aviation in the area.

Please feel free to contact me directly at 860-292-2054 if you have any questions or concerns.

Sincerely,

A handwritten signature in black ink that reads "Kevin A. Dillon".

Kevin A. Dillon, A.A.E.
Executive Director
Connecticut Airport Authority

ATTACHMENT 2

DPH Comments to Council, dated May 5, 2021

STATE OF CONNECTICUT

DEPARTMENT OF PUBLIC HEALTH



Deidre S. Gifford, MD, MPH
Acting Commissioner

Ned Lamont
Governor
Susan Bysiewicz
Lt. Governor

Drinking Water Section

May 5, 2021

Melanie Bachman
Executive Director
Connecticut Siting Council
Ten Franklin Square
New Britain, CT 06051

Re: Docket No. 498 - Diamond Towers V, LLC application for a Certificate of Environmental Compatibility and Public Need for the Construction, Maintenance, and Operation of a Telecommunications Facility located at 185 Academy Road (Route 68/Route 70), Cheshire, Connecticut

Dear Ms. Bachman:

The Drinking Water Section (DWS) of the Department of Public Health has reviewed the location and specific work items associated with the above noted Docket Number. This project is contained within the public water supply source area of Cheshire United Methodist Church's Well #1 as well as the public supply watershed (Mill River System) of the Lake Whitney Reservoir, an active source of public drinking water for the Regional Water Authority (CT0930011). The DWS offers the following recommendations to protect these sources of public drinking water:

- Erosion and sedimentation controls should be in place and properly maintained as necessary.
- A responsible party should be identified for maintenance, inspection, repair, and replacement and incorporation of new controls as may become necessary.
- Servicing of machinery should be completed outside of the public water supply watershed and groundwater source area.
- Refueling of vehicles or machinery should take place on an impervious pad with secondary containment designed to contain fuels.
- Fuel and other hazardous materials should not be stored within the public water supply watershed or groundwater source area. Any fuel or hazardous materials that must be kept within the public water supply watershed during working hours should be stored on an impervious surface utilizing secondary containment.
- A fuel spill remediation kit should be stored on-site so that any spills may be contained and cleaned quickly.



Phone: (860) 509-7333 • Fax: (860) 509-7359
Telecommunications Relay Service 7-1-1
410 Capitol Avenue, P.O. Box 340308
Hartford, Connecticut 06134-0308
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Affirmative Action/Equal Opportunity Employer



Ms. Bachman
May 5, 2021

Page 2

- The Cheshire United Methodist Church and the Regional Water Authority should be contacted prior to starting this project to review the scope of this project.
- The Cheshire United Methodist Church and the Regional Water Authority personnel should be allowed to periodically inspect this project to ensure that drinking water quality is not being adversely impacted.

If you have any questions regarding this matter, please contact Rich Iozzo of this office at 860-936-1122.

Sincerely,



Eric McPhee
Supervising Environmental Analyst
Drinking Water Section

c: Thomas C. Barger, Water Quality Manager, Regional Water Authority